



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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May 6, 1999

TO: File

THRU: Daron Haddock, Permit Supervisor *DH*

THRU: Joe Helfrich, Permit Supervisor *JH*

FROM: Michael Suflita, Reclamation Hydrologist *MS*

RE: Riprap Addition, Canyon Fuel Company, LLC, Dugout Mine, ACT/007/039-99C, Folder #2, Carbon County, Utah

## SUMMARY:

On April 15, 1999 the Applicant submitted a change to the MRP to add riprap to the main channel of Dugout Creek at the outlet of the culvert under the county road. This was done to satisfy a requirement by the State Engineer's Office for this action to minimize the risk of erosion during high runoff events. This location is immediately adjacent to the lowest end of the disturbed area and the riprap would be right on the boundary. The county will maintain the riprap outside the disturbed area and the Applicant would maintain it inside the disturbed area. In addition, the Applicant requested a second riprap addition at the end of the main ditch leading into the sediment pond to improve stability.

## TECHNICAL ANALYSIS:

## **HYDROLOGIC RESOURCE INFORMATION**

Regulatory Reference R645-301-744

Waste Rock Expansion

ACT/007/039-99C

May 6, 1999

Page 2

**Analysis:**

Plate 7-5, Disturbed Area Diversions, was revised to reflect the newly riprapped areas. The text was revised in Chapter 7 to reflect the new riprap, including the affected tables and Appendix 7-11. The culvert outlet riprap design appears adequate with regard to the Manning roughness coefficient and other aspects, particularly the riprap sizing.

The riprap for the sed pond ditch also appears appropriately sized. The ditch slope and roughness were confirmed and it appears the design is adequate. This is a relatively minor revision of the MRP and seems to be adequate.

**Findings:**

The proposed revision meets regulatory requirements.

**RECOMMENDATION:**

The proposed revision can be approved in its present form.